

S 66 /

PRICE SIXPENCE.

FIFTH ANNUAL REPORT

OF THE

ERITH & BELVEDERE

Natural History & Scientific Society

CONTAINING

THE RULES OF THE SOCIETY, A LIST OF ITS
MEMBERS, AND PAPERS OF LOCAL INTEREST.



MARCH 1883.

8, 66.

FIFTH ANNUAL REPORT

OF THE

ERITH & BELVEDERE *k*

Natural History & Scientific Society

CONTAINING

THE RULES OF THE SOCIETY, A LIST OF ITS
MEMBERS, AND PAPERS OF LOCAL INTEREST.



MARCH 1883.

ERITH & BELVEDERE
Natural History & Scientific Society.

President.

F. R. DALDY, B.A. Lond.

Vice-Presidents.

REV. T. W. HARDY, M.A.

G. A. CAPE.

Council.

H. K. W. BARKER.

A. H. BATEMAN.

A. P. BLATHWAYT.

R. A. BURROWS.

A. S. GREENWAY, M.D.

H. A. GREIG.

JOHN HARRIS.

W. O. ROBINSON.

DR. SPURRELL.

Treasurer.

M. J. LETCHER,

RIPLEY LODGE, BELVEDERE.

Hon. Secs.

C. H. GOODMAN,

KEARSBROOK LODGE, LESNES HEATH.

H. F. GREIG,

THE EAVES, BELVEDERE.

RULES.

I.

The Society shall be called the ERITH AND BELVEDERE NATURAL HISTORY AND SCIENTIFIC SOCIETY, and have for its object, the promotion of the study of Natural History, Science, and Archæology.

II.

The Meetings of the Society shall be held on the Third Thursday in the Month, at Eight o'Clock, in the Belvedere Public Hall, or elsewhere; but in lieu of these, Field Meetings may be held during May, June, July, and August, at such time and place as shall be arranged by the Council.

III.

The business of the Society shall be conducted by a President, two Vice-Presidents, Treasurer, two Honorary Secretaries and Council of nine other Members, who shall be elected by Ballot at each Annual General Meeting, four to form a quorum. Vacancies to be filled by the Council.

IV.

In the absence of the President and Vice-Presidents, the Members present at any Ordinary Meeting of the Society shall elect a Chairman for that evening.

V.

Every Candidate for Membership must be proposed by two Members (one of whom at least shall have personal knowledge of him) who shall sign a certificate in recommendation of him according to Form appended. The Certificate shall be read from the Chair, and the Candidate therein recommended balloted for at the following Meeting. Three black balls to exclude. Ladies are admissible as Members.

VI.

The Annual Subscription shall be Five Shillings, payable in advance on the 1st of March, and no person shall be entitled to the privileges of the Society until his Subscription shall have been paid.

VII.

The accounts of the Society shall be Audited by two Members (not being Members of the Council), who shall be appointed at the Ordinary Meeting in January.

VIII.

The Annual Meeting of the Society shall be held in place of the Ordinary February Meeting, when the election of Officers for the year ensuing shall take place, the Balance Sheet duly signed by the Auditors, and the Report of the Council on the affairs of the Society read.

IX.

At the Ordinary Meetings, which shall be either "Lecture" or "Gossip" Meetings, the following business shall be transacted: — The minutes of the preceding meeting read and confirmed, Donations announced, Nominations read, and a Ballot taken for new Members.

X.

Each Member may introduce one Visitor on "Gossip" nights and any number at half price on "Lecture" nights. The public shall be admitted on Lecture nights at One Shilling each. Both Members and Visitors shall sign their names in the Visitors' Book when required.

XI.

No Member shall be considered to have withdrawn from the Society until he has paid his arrears and given a written notice to the Secretary of his intention to resign. Any Member being more than one year in arrear in his Subscription shall be liable to have his name erased from the list of Members by the Council.

XII.

That, should it be thought desirable to erase the name of any Member from the Society, the same shall be done by a Resolution of the Council, but an appeal may be made at the next Ordinary Meeting, which shall have power to confirm or rescind such resolution.

XIII.

That any person who has rendered service to the Society may be proposed by the Council as an Honorary Member and elected by ballot in the usual manner.

XIV.

That any alteration in the Rules of the Society be made only at the Annual Meeting, or at a Special Meeting convened for the purpose, and that notice of any such alteration be given by the Secretary at least seven days previous to such Meeting; also that a Special Meeting can at any time be convened on a requisition to the Council signed by at least six Members.

FORM OF CERTIFICATE FOR ELECTION OF MEMBERS.

Grith & Belvedere Natural History & Scientific Society.

M _____

of _____

being desirous of becoming a Member of this Society, we beg
to recommend h for Election.

_____ (personal knowledge)

R E P O R T .

Your Council have to report that the number of Members of the Society has been fully maintained.

In compliance with the resolution passed at the Monthly Meeting in April last, the Council have presented the herbarium and other objects to the Maidstone Museum, which has acknowledged their reception with thanks.

With a view to meet the wishes of several members of the Society, your Council suggest that in future some of the ordinary meetings be held in the small room of the Hall, for the reading of technical and local papers, and the exhibition of objects of scientific or special interest, and that at the other meetings, popular lectures by professional or other lecturers be given. They also propose that the benefits of the Society be extended to the public, by admitting them to these lectures at a small fee.

The following meetings have been held during the year :—
1882.

- Feb. 21. Fourth Annual Meeting, at which there was an exhibition of scientific and other objects.
- Mar. 21. Lecture on "Planets, their past and future," by Mr. G. S. Waters, F.R.A.S.
- April 18. Notes on the History of the River Darent, by Mr. F. C. J. Spurrell.
Note on recent discoveries at Northend, Erith, by Mr. H. W. Smith.
- June 10. By permission of Lord Darnley, the Society visited Cobham Hall and inspected the pictures; also the parish church, over which they were conducted by the vicar, Rev. A. H. Berger, who pointed out the features of interest in the Priests' Chantry adjoining.

- June 28. Arrangements were made to explore the Deneholes at Stankey, near Bexley, but the excursion was unavoidably postponed.
- Sept. 19. The cryptogamic meeting announced for this date was entirely frustrated by the unpropitious weather.
- Oct. 17. A paper was read on old documents recently found at Erith by Mr. H. W. Smith.
A Paper on the Roman stone, found at Goldcliffe by Mr. J. Harris, was also read.
- Nov. 21. Lecture on the manufacture of Pottery, by Mr. J. H. Starling, F.C.S.
- Dec. 19. Lecture on "Coal and what we get from it," by Mr. T. T. B. Warren, accompanied by dissolving views and chemical experiments.

1883.

- Jan. 16. Lecture on "Old London," by Mr. W. G. Habershon, F.I.B.A., illustrated with views in the oxyhydrogen lantern.

The thanks of the Society are due to the donors of the following reports and pamphlets :—

Ninth Annual Report of New Cross Microscopical Society		} ...from the Society	
Third	„ Lewisham & Blackheath Scientific Association	} ...	„
Fifth	„ Hackney Microscopical Society	} ...	„
Transactions of the Eastbourne Natural History and Microscopical Club		} ...	„
Report of W. Kent, Natural History Society 1881-2.		} ...	„
Second Report, Croydon Microscopical Club		...	„
Proceedings „ „ 1881-2		...	„
Fifth Annual Report, Ealing Microscopical and Natural History Club, 1882		} ...	„
Parts 6, 7, 8, 9, Scientific Roll		from the Editor.	
Erith, by Arch. Smith		„	Mr. Daldy.
Deneholes and artificial caves, by F. C. J. Spurrell		„	the Author.
Chronicles of Kent		„	Miss Dunkin.
Account of St. John's Church, Sidcup		„	„
Waterbearing Strata of Ealing district		„	Ealing Society
Notes on Flints		„	„

THE ERITH AND BELVEDERE NATURAL HISTORY AND SCIENTIFIC SOCIETY.

Treasurer's Statement of Account, February 28th, 1883.

RECEIPTS.		PAYMENTS.	
£	s. d.	£	s. d.
To Balance brought forward	... 4 15 1	By Rent of Lecture Hall	... 10 10 0
" Subscriptions to February, 1882	... 1 5 0	" Printing 4th Annual Report	... 12 1 6
" Subscriptions to February, 1883	... 30 10 0	" Printing and Stationery	... 3 19 0
" Subscriptions paid in advance	... 0 10 0	" Postage	... 3 18 1
" Donations	... 2 3 0	" Hire of Apparatus at Meetings	... 1 4 6
" Sale of Annual Report	... 0 7 0	" Expenses at Field Meetings	... 0 8 0
		" Sundries	... 0 6 4
		Balance in hand	... 32 7 5
			... 7 2 8
			£39 10 1

Examined and found correct { BART. CRAWFORD,
T. J. HAINES, *Aud.*
February 1883.

R. W. CRADOCK,
Treasurer.

A CONTRIBUTION TO THE MOSS FLORA OF THE NEIGHBOURHOOD.

BY ALEX. S. GREENWAY, M.D., EDIN.

The following list is a sequel to the short paper that appeared in the Second Annual Report (1880) of this Society. A short description was then given of a typical moss with the organs of fructification. Mosses, it has been asserted, compose a fourth part of the entire vegetation of the globe, so that they are well worthy of study. No doubt, in pre-existing times, cryptogamous plants and especially mosses, predominated over the earth; but being an entirely cellular structure they have not been fossilized like those higher plants of a woody structure. We find in bogs which are composed principally of bog-mosses (*Sphagneæ*) mixed with species of feather mosses (*Hypnææ*), &c., that these bog mosses have their roots embedded, and derive nourishment from decaying bog mosses, &c. By penetrating deeper, we find these decayed mosses changed into a kind of coal (bituminous material), and, in fact, coal consists of nothing else but vegetable matter, and, in my opinion, principally mosses; so that from the large distribution of coal, we might infer that at one period of the earth's existence, cryptogamous plants (ferns, mosses, &c.) formed the principal part of the vegetation. No doubt it is no easy matter to distinguish between some species of mosses. Especially do we find this the case in the very large family of feather mosses. In fact, the most accomplished bryologists would not specify some of these latter without the aid of a microscope. Then again, we find species vary so much according to habitat and other surrounding circumstances, that these varieties have been given names by some, causing a multiplication of names. Another cause for complaint is, that various authors have changed the names of plants, and have given them others, causing great confusion to amateurs. It is to be hoped, that the distinguished bryologist, Dr. BRAITHWAITE, who has in the press a work on the "British Moss Flora," will simplify matters considerably. In his work, he is especially paying attention to the areolation or cell form of the leaves of mosses.

My list of mosses is small, but I hope to enlarge it at some future time. I have gathered them along the banks of streams, roadsides, stumps of

trees, old walls, &c., &c. Some mosses only grow in particular soil ; for instance, we find the minute *Seligerea Calcarea* on chalk cliffs ; on sandy soil is found the silver thread moss (*Bryum argenteum*) ; on dry peaty soil, the common hair moss (*Polytrichum commune*) ; on stumps of trees, the swan-necked thread moss (*Mnium hornum*) ; on old walls, the screw mosses (*Barbula*). Amongst grass are found various species of feather mosses (*Hypnæ*). The particular localities I have investigated are the following :—the Woolwich Road, Bostol Heath and Wood, Stapley's Wood, Wyman's Wood, and Abbey Wood. Mosses are more frequent in damp situations and most luxuriant in the early months of the year, when they are generally in fruit. Our largest species of mosses in the locality are the *Hypnum alopecurum*, the *Polytrichum commune*, and *Mnium hornum*. The smallest is the *Seligerea calcarea*, and others easily overlooked. I may here remark, that through the drainage and removal of part of the furze on Bostol Heath, many of the mosses will disappear ; for instance, two years ago in the principal dale the bog mosses were plentiful—they are now rapidly diminishing in quantity.

Appended is a list of the mosses I have found in the above-mentioned places, under their particular families, with their habitat and times of fructification. Wilson's plan, given in his "*Bryologia Britannica*," has been adopted as far as practicable.

SPHAGNÆ (peat or bog moss family). Always known by the spiral fibre in each cell of the leaves.

SPHAGNUM CYMBIFOLIUM, Ehrh. (*blunt-leaved peat moss*). Hab. Bostol Dale ; plentiful, not found in fruit.

SPHAGNUM COMPACTUM (*compact bog moss*). Hab. same as *S. cymbifolium* ; not in fruit.

GEORGIEÆ.—GEORGIA PELLUCIDA, the gemmiform plant. Hab. common on damp banks and stumps of trees ; not in fruit.

POLYTRICHEÆ (*hair moss family*), so called from the hairy calyptra or hood.

POLYTRICHUM COMMUNE, L. (*common hair moss*). Hab. Bostol Heath ; plentiful, the female plant less frequent ; in fruit during June.

ATRICHUM UNDULATUM, L. (*wavy-leaved hair moss*). Hab. dry banks in Stapley's Wood ; less frequent than the former species ; in fruit during November.

POGONATUM ALOIDES, Hedw. Hab. Stapley's Wood, not common ; in fruit during December.

LEUCOBRYEÆ (*white-leaved fork moss family*).

LEUCOBRYUM GLAUCUM, L. Hab. in damp hollows of Bostol Wood, on stumps of trees and ground ; very common. This moss exists in large spongy cushions ; very rare in fruit.

DICRANEÆ (*yoke moss family*).

DICRANELLA HETEROMALLA, Hedw. Hab. dry banks in Bostol Wood and also Stapley's Wood ; it forms large green silky patches ; in fruit during March.

DICRANUM SCOPARIUM, L. (*broom yoke moss*). Hab. common on Bostol Heath under the furze bushes ; very seldom in fruit.

DICRANUM MAJUS, Turn. Hab. in boggy places in Bostol Dale ; not in fruit.

DICRANUM VARIUM, Hedw. Hab. Bostol Wood.

DICRANUM CRISPUM, Hedw. Hab. Stapley's Wood.

CERATODON PURPUREUS, L. (*purple yoke moss*). Hab. very common on the ground, in large purple patches when in fruit, which occurs during March. The peristome of this species is a beautiful object under the microscope.

FISSIDENTIÆ (*split moss family*). The leaves of this family are arranged in a vertical manner on the stem, and are split at the base, hence the name.

FISSIDENS BRYOIDES, Hedw. (*common flat split moss*). Hab. side of Woolwich Road ; rare ; in fruit during March.

FISSIDENS ADIANTOIDES, Hedw. (*marsh split moss*). Hab. marshy ground in Bostol Dale ; in fruit during March.

FISSIDENS TAXIFOLIUS, L. Hab. bank of stream near Bostol Wood. Not in fruit.

TRICHOSTOMEÆ. So named from the hair-like form of the teeth of the peristome.

BARBULA MURALIS, L. (*common wall screw moss*). Hab. very common on old walls. In fruit during February.

BARBULA REVOLUTA, Schwg. Hab. old walls ; rare.

BARBULA SUBULATA, L. Hab. Bostol Heath ; not common.

BARBULA RURALIS, L. Hab. on the sandy banks of Bostol Hill cutting ; rather common. In fruit during February.

TRICHOSTOMUM UNDULUM, Smith. Hab. chalky bank of stream near Bostol Wood. In fruit during February.

FUNARIEÆ (*cord moss family*).

FUNARIA HYGROMETRICA, L. (*common cord moss*). Hab. damp banks and ground ; very common. In fruit during February. Known by the fruit stalk being much curved and hygrometric.

BRYEÆ (*thread moss family*). Generally known by the drooping of the capsules.

BRYUM INTERMEDIUM, W. & M. Hab. Bostol Heath. In fruit during March.

BRYUM ARGENTEUM, L. (*silver thread moss*). Hab. on sandy banks and sandy ground. In fruit during February.

BRYUM CERNNUUM, Hedw. (*drooping thread moss*). Hab. on the Heath, Bleak Hill. In fruit during January.

BRYUM ATROPURPUREUM, W. & M. (*dark purple thread moss*). Hab. Dawson's brick field, Wickham Lane. In fruit during February.

BRYUM PALLENS, Swartz (*pale leaved thread moss*). Hab. on walls of Brampton Place, Brampton Road. In fruit during March.

SELIGEREA CALCAREA, Dicks. Hab. face of chalk cave, Wickham Lane. A very minute species.

MNIUM AFFINE, Bland. Hab. Stapley's Wood. Not in fruit.

MNIUM PUNCTATUM, Hedw. (*dotted thyme thread moss*). Hab. Bostol Dale. Not in fruit.

MNIUM HORNUM, L. (*swan-necked thread moss*). Hab. very common in damp parts of Bostol and Stapley's Wood. A large graceful moss, in fruit during March, but not common. I have also found the female plant.

AULACMNION ANDROGYNUM, L. Hab. Abbey Wood. Very rare.

BARTRAMIEÆ (*apple moss family*), so called from the globular form of the capsules.

BARTRAMIA POMIFORMIS, L. (*common apple moss*). Hab. rather rare on Bostol Heath, but common near Bexley, according to Dr. Spurrell. In fruit during March.

HYPNEÆ (*feather moss family*). A very large family, but the most beautiful one. Latterly, this family has been divided into about twenty genera. The old generic name has been retained here.

HYPNUM ALOPECURUM, Linn. (*fox-tail feather moss*). Hab. on the ground in Stapley's Wood ; common, but not in fruit.

HYPNUM PURUM, L. (*meadow feather moss*). Hab. sandy banks. Not in fruit.

HYPNUM VELUTINUM, L. (*velvet feather moss*). Hab. stumps of trees in Bostol Wood. In fruit during February.

HYPNUM PRÆLONGUM, L. (*prolonged feather moss*). Hab. Bostol Wood ; but not in fruit.

HYPNUM DENTICULATUM, L. (*sharp flat-leaved feather moss*). Hab. Stapley's Wood. Not in fruit.

HYPNUM CUPRESSIFORME, L. (*cypress-leaved feather moss*). Hab. stumps of trees. A species very liable to vary. In fruit during January.

HYPNUM SERICEUM, L. (*silky feather moss*). Hab. bark of tree in Bostol Wood. Not in fruit.

HYPNUM SCHREBERI, Ehrh. Hab. amongst heather on Bostol Heath. Not in fruit.

HYPNUM TRIQUETRUM, L. (*triangular-leaved feather moss*). Hab. amongst grass ; but not in fruit.

HYPNUM UNDULATUM, L. (*waved feather moss*). Hab. woods and dry heathy places. Not in fruit.

HYPNUM RUTABULUM, L. (*common rough-stalked feather moss*). Hab. stumps of trees in Bostol Wood. In fruit during February.

HYPNUM DELICATULUM, Linn. (*delicate feather moss*). Hab. chalky banks with H. Tamariscinum. Not in fruit.

HYPNUM SPENDENS, Hedw. (*glittering feather moss*). Hab. frequent on grassy banks in woods. Not in fruit.

HYPNUM TAMARISCINUM, Hedw. (*tamarisk feather moss*). Hab. pretty frequent in Stapley's Wood. Not in fruit.

HYPNUM SQUARROSUM, L. (*dill drooping-leaved feather moss*). Hab. in hedges in locality. Not in fruit.

HYPNUM POPULEUM, Hedw. (*matted feather moss*). Hab. at foot of larch trees in Bostol Wood. In fruit during February.

HYPNUM SPECIOSUM, Bridel (*showy feather moss*). Hab. Bostol Heath. In fruit during January.

LOCAL ARCHÆOLOGY.

PAPER READ BY H. W. SMITH, APRIL 18TH.

At a meeting of this Society held in January last, I reported the recent finding of a human skeleton and a hoard of coins. As to the human remains not very much can be said. On January 13th, some workmen employed in laying down some pipes came upon the skeleton at about two feet beneath the surface of the road, opposite the Plough public house, Crayford Road, and at the entrance of what was once Plough Lane, which formerly led to Northumberland Heath, terminating where lately stood the row of cottages known as Mount Pleasant. I may state by the way, and as taking note of the changes which take place around us, that this lane has almost disappeared, owing to the excavations made for brick earth by Messrs. White. I am told that many years ago it was a favorite camping ground for hordes of gipsies who might be found here nearly the whole year through. The skeleton was lying due east and west, with the head apparently resting on one of the arms, but the skull was broken by the pickaxe of one of the workmen. The men were not permitted to open up the road, so that the skeleton might be exhumed in its entirety, and the remaining portions are therefore still lying where they were buried. The point at which the skeleton was found, although at the entrance to Plough Lane, can scarcely be called a cross-road in the strictest sense of the term, or we might be warranted in supposing that some suicide or criminal had been there buried—such being the custom many years ago. Many of you may not care to look upon the mute relics of humanity which I have brought. I say mute relics; but Bryon's lines on the skull which he had converted into a drinking cup occur to mind, and, in imagination, these dry bones seem to say—

Start not * * * I lived, I loved * * * like thee,
 I died * * * perchance * * * another race
 When thou and thine like me are sped
 May rescue thee from earth's embrace.

We now come to the coins. These were found about 30 feet further on towards Crayford, at two feet from the surface and about three feet from

the existing bank, by the roadside. Thirty-five or 36 coins were discovered, and all were testoons or shillings of the first coinage of Edward VI. with one exception, this being a groat of Henry VIII., struck at York, and one of the fourth coinage of that King in the year 1513. On the obverse of the groat the head of the King is represented nearly full face, and this coin was at first supposed to be a gold one from its color when rubbed. This arose solely from the amount of copper which it contained. The coinage was debased to such an infamous extent, the amount of alloy being eight ounces of copper to four ounces of silver, that the groats and shillings with the full face of the King soon displayed the inferior metal at the most prominent part, viz., the end of the nose. This gave a good opportunity of having a joke at his portly Majesty's expense, so that his most loyal subjects, in speaking of him, often called him "old copper nose." I have secured the groat and 16 of the testoons of Edward VI. Of the testoons or shillings in my possession five are dated 1549, five 1550 and six are dated 1551. The obverse of each coin has the King's profile, crowned, looking to the right, with the name in full and the titles abbreviated. On the reverse is an oval shield of arms, garnished, with E.R. at the sides, with the date and the motto, "*Timor Domini fons vitæ*," meaning "The fear of the Lord is a fountain of Life." It seems to have been at first intended that the base state of the coinage, as left by Henry, should be improved, but the way of doing it appears to have been far from honest, for the whole of these testoons consist of anything but good silver, as we shall presently see. Most of us know that the young King kept a journal with his own hand, which is still preserved in the British Museum. In it an entry appears as follows: "It was appointed to make 20,000 pounds weight to get £15,000 clear," and the silver coins which were then issued had nine ounces of alloy to three ounces of silver. These shillings Bishop Latimer alluded to in one of his sermons. "We have now," said he, "a pretty little shilling, a very pretty shilling, but the fineness of the silver I cannot see. Yet a fine sentence is printed thereon, 'The fear of the Lord is a fountain of Life.' I would to God (said the good Bishop) that this sentence was always printed on the heart of the King." In another sermon the Bishop, in speaking of the baseness of the coinage, says: "Thy silver is turned into what? testoons! into dross."—using a text in Isaiah. These remarks on both occasions, were made in the presence of the King, and the question arose as to whether these allusions were not

sedition. These inferior coins of Edward VI. are the first English money bearing a date, and are interesting on that account. They are, therefore, not to be confounded with the broad shillings of the second coinage struck in 1551, without a date. I have brought a specimen of the broad shilling with me, and you will perceive that it is of better silver, an advance being made in the right direction, in that the standard of the coinage of silver is raised to 110z., 1dwt. of silver to 19 dwt. of alloy. It may be as well to state that the broad shillings are so called from the nearly full faced portrait of the King on the obverse side. He appears dressed in parliamentary robes, collar of the garter, with a rose, and the Roman numerals XII. at the sides. On the reverse, the old Latin motto, "Posui Deum Adjutorem Meum," "I have made God my Help," again appears, with the arms traversed by a cross. The broad shillings seem to have been used in the time of Shakspeare, at the game of shovel-board. Slender, in the *Merry Wives of Windsor*, complains that "Pistol" has robbed him of two "Edward shovel-boards" or broads. But to return to our base testoons. Later on, by proclamation of Elizabeth in 1560, these shillings were marked with a particular mint mark, such as a portcullis, and ordered to pass for $4\frac{1}{2}$ d., so that a fraud on the public of three-fourths of the amount of the base coinage was effected. Some were also stamped with a greyhound, and ordered to pass for so low a sum as $2\frac{1}{2}$ d. None of these Elizabethan mint marks appear on this find of coins, so we may conclude that they were put in their hiding place prior to her reign, either in the time of Edward VI. or Queen Mary.

FLINT IMPLEMENT.

BY F. C. J. SPURRELL.

At the meeting held on April 18th, 1882, Mr. H. W. Smith brought a flint implement to show me. It was found in the "Old" Darenth bed in Erith Village. As he, being in doubt as to its nature, did not bring it forward publicly, and there are so few searchers for these relics of a far off time, I think it right to notice this, the first find in that gravel.

It is very symmetrical (except where injured by a pick), is carefully chipped, and does not appear to have been much rolled. It is somewhat remarkable, for the end opposite to the butt is a cutting edge, being very thin, and in a perfectly straight line of over two inches in length.

Maximum dimensions— $4.4 \times 3.7 \times 1.8$. Colour—warm brown.

							Cwt.	qrs.	lbs.
Treble...	...	...	...	...	...	...	4	1	5
2nd .....	...	...	...	...	...	...	5	0	0
3rd .....	...	...	...	...	...	...	5	1	19
4th .....	...	...	...	...	...	...	6	2	13
5th .....	...	...	...	...	...	...	8	3	4
6th .....	...	...	...	...	...	...	9	3	12
7th .....	...	...	...	...	...	...	12	2	12
Tenor ...	...	...	...	...	...	...	16	3	22

LIST OF MEMBERS.

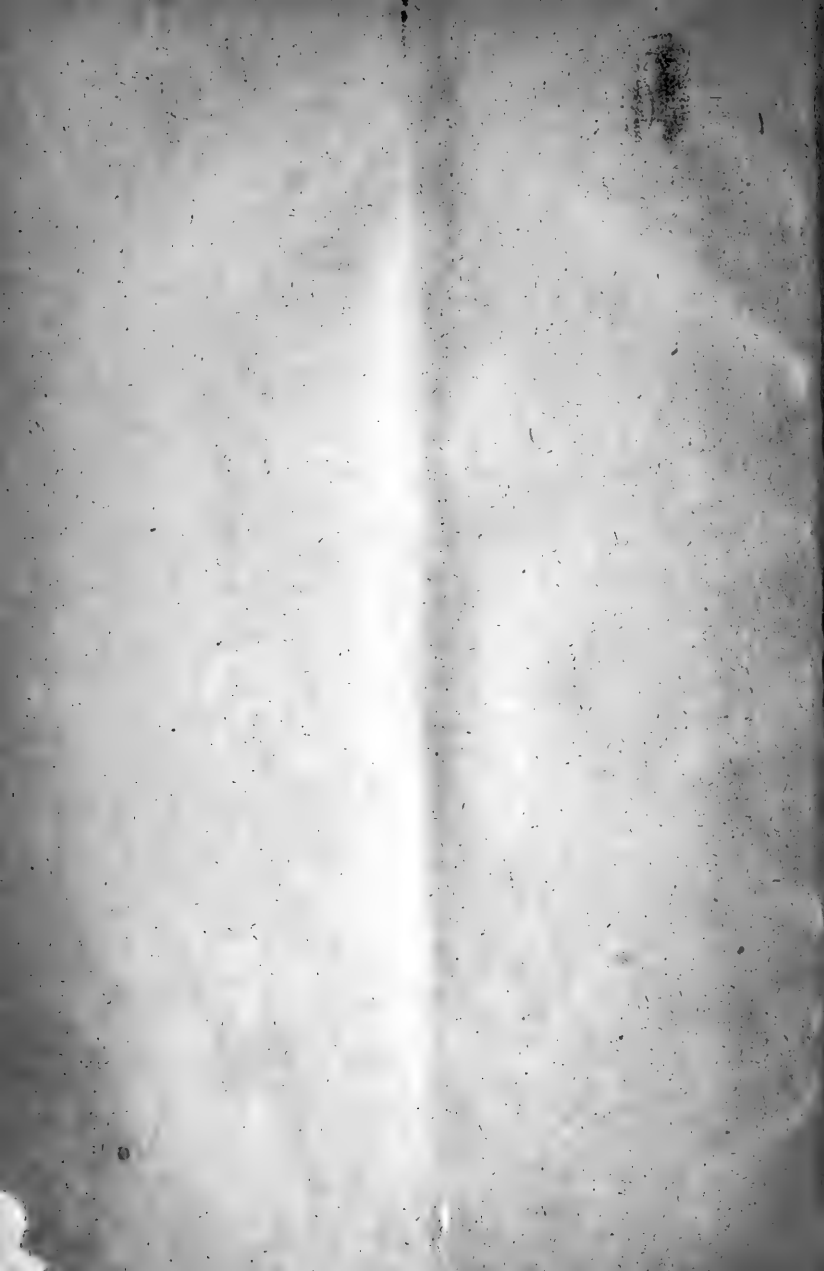
APPLEFORD, H.	...	...	Montealto*
ASSER, ROBERT	...	...	The Tower, Belvedere Park
ASSER, Mrs.	...	...	The Tower, Belvedere Park
ASSER, JAMES	...	...	The Tower, Belvedere Park
ASSER, RICHARD	...	...	The Tower, Belvedere Park
ATKINS, H. S.	...	...	4, Lesness Villas
AULD, H. A.	...	...	Hyde Vale, Blackheath
BALLARD, H. S.	...	...	Highfield Road, Dartford
BARBER, S. C.	...	...	Oak Villa, Bexley Heath
BARKER, H. K. W.	...	...	4, Gloucester Road
BARKER, Mrs.	...	...	4, Gloucester Road
BATEMAN, A. H.	...	...	Berkhampstead Road
BEADLE, CHARLES	...	...	Bedonwell
BELCHER, J. W.	...	...	The Briars, Lesness Park
BENSON, W.	...	...	Holly Hill
BERNAU, Miss	...	...	Montague House, Wallington
BERTOLACCI, E.	...	...	Custom House, E.C.
BILBY, E.	...	...	Halt Robin Road
BIRTS, W.	...	...	Ugie Bank, Abbey Wood
BLATHWAYT, A. P.	...	...	Heathlands
BLATHWAYT, Mrs.	...	...	Fern Lodge
BLOUNT, G. B.	...	...	Woodside
BOSWELL, W.	...	...	Queen Street Place, Dartford
BOSWELL, Mrs.	...	...	Queen Street Place, Dartford
BRIGHT, E. B., F.R.A.S.	...	...	Abbey Wood
BURGESS, MARTIN	...	...	90, Brockley Road, Brockley, S.E.
BURROWS, R. A.	...	...	4, Gloucester Villas
CALLENDER, W. M.	...	...	Essenden Road
CALLENDER, T. O.	...	...	Essenden Road
CALLENDER, J. O.	...	...	Essenden Road
CANE, H., M.D.	...	...	The Gables
CAPE, G. A.	...	...	Abbey Wood
CAPE, Mrs.	...	...	Abbey Wood
CAPE, Miss A. J.	...	...	Abbey Wood
CAPE, Miss E. M.	...	...	Abbey Wood
CLEMINSHAW, EDWARD, B.A.	...	...	Newnham Lodge
CLEMINSHAW, Miss	...	...	Newnham Lodge
COLMAN, W.	...	...	Park Road
COLMAN, Mrs.	...	...	Park Road
CORDEN, WILLIAM	...	...	High Street, Dartford
COWLES, Miss	...	...	Flora Villa
CRADOCK, R. W.	...	...	Myrtle Villa

* Where no locality is inserted read Belvedere.

CRAIG, J. ... ..	... Brompton Park Road, Bexley Heath
CRAWFORD, BARTHOLOMEW ...	... 3, Gloucester Villas
DALDY, F. R., B.A....	... Aldine House
DAWKINS, Mrs. ... ..	... Bexley Road
EDWARDS, G. M. ... ..	... Erith Road
EGERTON, WILLIAM, Junr....	... Erith
EGERTON, Mrs. ... ..	... Erith
EGERTON, WALTER ... ..	... Bridgewater House
EGERTON, Miss ... ..	... Bridgewater House
ELLIOT, JOHN, M.R.C.S. ...	... The Firs
ELLIOT, Mrs....	... The Firs
ELTON, O. ... ..	... Picardy Road
ELTON, Mrs. ... ..	... Picardy Road
EMMS, T. L. ... ..	... Picardy Hill
FAVARGER, H. ... ..	... Yewhurst
GIBSON, S. W. ... ..	... Belvedere Hotel
GOODMAN, A. W. ... ..	... Heath House
GOODMAN, C. H. ... ..	... Kearsbrook Lodge
GOODMAN, Miss N. ... ..	... Heath House
GOODMAN, W. MEIGH, B.A.	... Camden Lodge
GREENWAY, A. S., M.D. ...	... Heath Villa
GREENWAY, Miss ... ..	... Heath Villa
GREIG, H. A. ... ..	... The Eaves
GREIG, Mrs. ... ..	... The Eaves
GREIG, H. F. ... ..	... The Eaves
GREIG, J. H. ... ..	... The Eaves
GREIG, Miss ... ..	... The Eaves
GREY, M. ... ..	... Abbey Wood
GREY, R. ... ..	... Abbey Wood
GREY, Miss ... ..	... Abbey Wood
GRIGG, Mrs. ... ..	... Thanet Cottage
GRIGG, Miss ... ..	... Thanet Cottage
HABERSHON, W. G., F.I.B.A.	... care of E. Bilby, Halt Robin Road
HAINES, T. J. ... ..	... Albert Road
HARDY, Rev. T. W., M.A....	... 15, Erith Road
HARDY, T. de L. ... ..	... 15, Erith Road
HARDY, H. J. ... ..	... 15, Erith Road
HARDY, Miss... ..	... 15, Erith Road
HARDY, Miss LILIAN ... ..	... 15, Erith Road
HARDY, Miss LUCY ... ..	... 15, Erith Road
HARRIS, J. ... ..	... Howrah Villa
HEATHER, THOMAS... ..	... Little Heath House, Old Charlton
HEATON, C. W., F.C.S. ...	... Albert Road
HENWOOD, W. B. ... ..	... 2, Picardy Hill
HICKIE, R. C. ... ..	... Abbey Wood
HOOKE, A. ... ..	... Court Lodge
HOUGHTON, F. E. ... ..	... Crossness
HOUGHTON, F. G. ... ..	... Crossness
HULETT, D. ... ..	... Holly Hill
JUKES, Miss ... ..	... 3, Marlborough Villas
JUKES, Miss E. ... ..	... 3, Marlborough Villas
KNOBLANCH, L. ... ..	... Park Road
LETCHER, M. J. ... ..	... Ripley Lodge
LEWIS, L. E. ... ..	... Bexley Road
LIGHTBODY, R. ... ..	... The Grange
LYSTER, A. C. ... ..	... Gisburne House
LYSTER, C. R. C. ... ..	... Gisburne House

MANNING, W. S.	...	...	Avenue Road, Bexley Heath
MARKBY, A. P.	...	...	Woolwich Road
MARSHALL, WILLIAM	...	...	1, Rutland Gate
MARSHALL, E.	...	...	1, Rutland Gate
MAY, E. A.	...	...	Park Road
MILLS, Sir C. H., Bart., M.P.	...	...	The Wilderness, Sevenoaks
MISKIN, J. B.	...	...	Miskin Road, Dartford
MOENS, A. F.	...	...	Holme Hurst
MONKHOUSE, C.	...	...	Erith Road
MORICE, BEAUMONT, LL.B.	...	...	Treflys, Erith
PALMER, Mrs.	...	...	Tower House
PARISH, FREDERICK	...	...	Erith
PINNOCK, Miss	...	...	Heathfield House
PINNOCK, Miss A. C.	...	...	Heathfield House
PLAYER, C.	...	...	Picardy Hill
RIND, MALCOLM, Col.	...	...	Westheath, Abbey Wood
ROBINSON, W. O.	...	...	2, Rutland Gate
SANDERSON, W.	...	...	River View
SANDERSON, Mrs.	...	...	River View
SCRASE, Miss	...	...	Erith
SEAGER, F. W.	...	...	Bexley Road
SINGER, Capt., R.N.	...	...	Westgate House
SMITH, ROBERT	...	...	Abbey Farm
SMITH, Miss	...	...	Abbey Farm
SMITH, Miss E. M.	...	...	Abbey Farm
SMITH, H. W.	...	...	Bedwell Road
SMITH, Miss F. E.	...	...	The Willows
SMITH, Miss M.	...	...	The Willows
SNOWDEN, E. W.	...	...	Bridge Villa, Dartford
SNOWDEN, Miss F.	...	...	Bridge Villa, Dartford
SPURRELL, Dr.	...	...	Picardy Road
SPURRELL, F. C. J.	...	...	Picardy Road
STARLING, J. H., F.C.S.	...	...	The Avenue, Erith
STICKLAND, J.	...	...	Estate Office
STRICKLAND, R. A.	...	...	Hastings Villa, Erith
STRICKLAND, H. A.	...	...	Hastings Villa, Erith
STRICKLAND, Miss	...	...	Hastings Villa, Erith
SURMON, H. J.	...	...	Park Road
SURMON, Miss	...	...	Park Road
SURMON, Miss P.	...	...	Park Road
THOMAS, W. H.	...	...	Ormonde House
THOMAS, W. H., Junr.	...	...	Ormonde House
THOMAS, Miss	...	...	Ormonde House
THOMAS, Miss J.	...	...	Ormonde House
THOMAS, W.	...	...	Picardy Hill
THORPE, Miss	...	...	2, Gloucester Road
UTERMARCK, Miss	...	...	15, Erith Road
VIRTUE, J. S.	...	...	Habergham Manor
WILLCOCKS, G.	...	...	23, Rood Lane, E.C.
WILLIAMS, Miss	...	...	3, Rookery Road
WILSON, R.	...	...	High Street, Dartford
WISE, E.C.	...	...	Park Road
WOOD, F.	...	...	Bostol Hill, Abbey Wood





SIXTH ANNUAL REPORT

OF THE

ERITH & BELVEDERE

Natural History & Scientific Society

CONTAINING

THE RULES OF THE SOCIETY,

AND

A LIST OF ITS MEMBERS.



MARCH 1884.

S. 66.

SIXTH ANNUAL REPORT

OF THE

ERITH & BELVEDERE

Natural History & Scientific Society

CONTAINING

THE RULES OF THE SOCIETY,

AND

A LIST OF ITS MEMBERS.



MARCH 1884.

ERITH & BELVEDERE
Natural History & Scientific Society.

President.

REV. T. W. HARDY, M.A.

Vice-Presidents.

A. P. BLATHWAYT.

F. R. DALDY, B.A. Lond.

Council.

A. H. BATEMAN.

T. O. CALLENDER.

G. A. CAPE.

A. S. GREENWAY, M.D.

H. A. GREIG.

JOHN HARRIS.

M. J. LETCHER.

W. O. ROBINSON.

DR. SPURRELL.

Treasurer.

M. J. LETCHER,

RIPLEY LODGE, BELVEDERE.

Hon. Secs.

C. H. GOODMAN,

KEARSBROOK LODGE, BELVEDERE.

H. F. GREIG,

THE EAVES, BELVEDERE.

RULES.

I.

The Society shall be called the ERITH AND BELVEDERE NATURAL HISTORY AND SCIENTIFIC SOCIETY, and have for its object the promotion of the study of Natural History, Science, and Archæology.

II.

The Meetings of the Society shall be held on the Third Thursday in the Month, at Eight o'Clock, in the Belvedere Public Hall, or elsewhere; but in lieu of these, Field Meetings may be held during May, June, July, and August, at such time and place as shall be arranged by the Council.

III.

The business of the Society shall be conducted by a President, two Vice-Presidents, Treasurer, two Honorary Secretaries and Council of nine other Members, who shall be elected by Ballot at each Annual General Meeting, four to form a quorum. Vacancies to be filled by the Council.

IV.

In the absence of the President and Vice-Presidents, the Members present at any Ordinary Meeting of the Society shall elect a Chairman for that evening.

V.

Every Candidate for Membership must be proposed by two Members (one of whom at least shall have personal knowledge of him) who shall sign a certificate in recommendation of him according to Form appended. The Certificate shall be read from the Chair, and the Candidate therein recommended balloted for at the following Meeting. Three black balls to exclude. Ladies are admissible as Members.

VI.

The Annual Subscription shall be Five Shillings, payable in advance on the 1st of March, and no person shall be entitled to the privileges of the Society until his Subscription shall have been paid.

VII.

The accounts of the Society shall be audited by two Members (not being Members of the Council), who shall be appointed at the Ordinary Meeting in January.

VIII.

The Annual Meeting of the Society shall be held in place of the Ordinary February Meeting, when the election of Officers for the year ensuing shall take place, the Balance Sheet duly signed by the Auditors, and the Report of the Council on the affairs of the Society read.

IX.

At the Ordinary Meetings, which shall be either "Lecture" or "Gossip" Meetings, the following business shall be transacted:—The minutes of the preceding meeting read and confirmed, Donations announced, Nominations read, and a Ballot taken for new Members.

X.

Each Member may introduce one Visitor on "Gossip" nights, and any number at half-price on "Lecture" nights. The public shall be admitted on Lecture nights at One Shilling each. Both Members and Visitors shall sign their names in the Visitors' Book when required.

XI.

No Member shall be considered to have withdrawn from the Society until he has paid his arrears and given a written notice to the Secretary of his intention to resign. Any Member being more than one year in arrear in his Subscription shall be liable to have his name erased from the list of Members by the Council.

XII.

That, should it be thought desirable to erase the name of any Member from the Society, the same shall be done by a Resolution of the Council, but an appeal may be made at the next Ordinary Meeting, which shall have power to confirm or rescind such resolution.

XIII.

That any person who has rendered service to the Society may be proposed by the Council as an Honorary Member and elected by ballot in the usual manner.

XIV.

That any alteration in the Rules of the Society be made only at the Annual Meeting, or at a Special Meeting convened for the purpose, and that notice of any such alteration be given by the Secretary at least seven days previous to such Meeting; also that a Special Meeting can at any time be convened on a requisition to the Council signed by at least six Members.

FORM OF CERTIFICATE FOR ELECTION OF MEMBERS.

Grith & Belvedere Natural History & Scientific Society.

M _____

of _____

being desirous of becoming a Member of this Society, we beg
to recommend h for Election.

_____ (personal knowledge)

REPORT.

THE ERITH AND BELVEDERE NATURAL HISTORY AND SCIENTIFIC SOCIETY having completed its sixth year, may now be said to have fairly established itself in the neighbourhood, and during the past year the Council have made every effort to interest as large a circle as possible in its aims.

The services of eminent lecturers have been engaged, and tickets issued to enable the public to participate in the Society's Meetings, and many have availed themselves of the opportunities.

The two "Gossip" meetings already held indicate the desirableness of continuing them.

To meet the wishes of the Choral Society, an alteration in the day of meeting, from Tuesday to Thursday, was effected at the commencement of the winter session.

Our thanks are due for invitations to our Members received from the New Cross, Sidcup, Greenhithe and other Societies to take part in their soirées, excursions, &c.; and your Committee consider the idea of forming joint excursions with neighbouring Societies worthy of further development.

Attention is directed to the notice frame which has been hung by permission in the Belvedere Station, in which invitations to excursions, soirées, &c., received too late for announcement in the monthly circular, will always be found posted.

The following meetings have been held during the year :—
1883.

Feb. 20. Paper on Local Botany, by G. H. Barber, and
Annual Meeting.

Mar. 20. Lecture on Meteors, by A. Cooper Ranyard, M.A.,
F.R.A.S.

1883.

- April 17. Gossip Meeting and Exhibition of Objects.
- June 30. Joint Excursion with the Members of the West Kent, New Cross and Greenwich Societies to the site of Lesnes Abbey, Abbey Wood and Erith Church.
- Sept. 20. Cryptogamic Excursion in Abbey Wood. Gossip meeting in the evening.
- Oct. 18. Lecture on "The French in Tonking," by A. H. Keane, B.A.
- Nov. 15. Lecture on "Egypt during the Cholera," by A. H. Hooker, F.I.C., F.C.S.
- Dec. 20. Lecture on "The English Conquest of Britain," by W. Boyd Dawkins, M.A., F.R.S.

1884.

- Jan. 21. Lecture on "Artificial Cold," by C. W. Heaton, F.I.C., F.C.S.

Our thanks are due for the following donations received during the year :—

3 vols. Science Gossip. Scientific Roll 10, 11. 4th Annual Report Lewisham and Blackheath Scientific Association. "Withered leaves," lecture from Ealing Society. Report Essex Field Club, 1882. Papers and Memoirs, ditto. Annual Report Hampstead Nationalists Club. Report of West Kent Microscopical Society. Report Local Scientific Committee British Association. 12th Annual Report South London Society. Transactions Croydon Microscopical Society, 1882-3. Rochester Naturalist, No. 3.

The accounts of the Treasurer will be found satisfactory, and the Council desire to acknowledge and thank Mr. Cradock for the zeal with which he filled this office, until relieved by Mr. Letcher last year.

The papers usually printed with this Report will not be issued this year, owing to it being the year in which the Triennial Soirée is held.

THE ERITH AND BELVEDERE NATURAL HISTORY AND SCIENTIFIC SOCIETY.

Treasurer's Statement of Account to February 29th, 1884.

Dr.	RECEIPTS.			PAYMENTS.		Cr.
		£	s. d.			£ s. d.
To Balance brought forward	...	7	2 8	By Rent of Hall, to 24th January, 1884	...	8 8 0
" Subscriptions to February, 1884	...	24	16 0	" Printing Report	...	5 8 6
" Subscriptions paid in advance to 1885	...	2	10 0	" Printing and Stationery	...	6 0 0
" Sale of Reports	...	0	2 0	" Postage	...	2 15 0
" Entrance to Lectures at Door	...	1	18 0	" Hire of Apparatus at Meeting	...	0 6 6
				" Sundries	...	0 2 0
				" Paid Lecturer	...	2 2 0
				Balance in hand	...	11 6 8
						£36 8 8

Examined and found correct. { J. ELLIOT,
February, 1884. { W. H. THOMAS,
Auditors.

MARK J. LETCHER,
Treasurer.

LIST OF MEMBERS.

ALEXANDER, R.	...	...	...	New Works, Belvedere Marshes
APPLEFORD, H.	...	...	...	Montealto*
ASSER, ROBERT	...	...	...	The Tower, Belvedere Park
ASSER, Mrs.	...	...	...	The Tower, Belvedere Park
ASSER, JAMES	...	...	...	The Tower, Belvedere Park
ASSER, RICHARD	...	...	...	The Tower, Belvedere Park
ATKINS, H. S.	...	...	...	4, Lesnes Villas
ATTREE, G. C.	...	...	...	Picardy House
ATTREE, Mrs.	...	...	...	Picardy House
AULD, H. A.	...	...	...	Hyde Vale, Blackheath
BALLARD, H. S.	...	...	...	Highfield Road, Dartford
BATEMAN, A. H.	...	...	...	Berkhampstead Road
BEADLE, CHARLES	...	...	...	Bedonwell
BELCHER, J. W.	...	...	...	The Briars, Lesnes Park
BENSON, W.	...	...	...	Holly Hill
BERTOLACCI, E.	...	...	...	Custom House, E.C.
BIRTS, W.	...	...	...	Ugie Bank, Abbey Wood
BLATHWAYT, A. P.	...	...	...	Heathlands
BLATHWAYT, Mrs.	...	...	...	Fern Lodge
BLOUNT, G. B.	...	...	...	Woodside
BRIGHT, E. B., F.R.A.S.	...	...	...	Abbey Wood
CALLENDER, W. M.	...	...	...	Essenden Road
CALLENDER, T. O.	...	...	...	Essenden Road
CALLENDER, J. O.	...	...	...	Essenden Road
CANE, H., M.D.	...	...	...	The Gables
CAPE, G. A.	...	...	...	Abbey Wood
CAPE, Mrs.	...	...	...	Abbey Wood
CAPE, Miss A. J.	...	...	...	Abbey Wood
CAPE, Miss E. M.	...	...	...	Abbey Wood
CLEMINSHAW, EDWARD, B.A.	...	...	...	Newnham Lodge
CLEMINSHAW, MISS	...	...	...	Newnham Lodge
COLMAN, W.	...	...	...	Park Road
COLMAN, Mrs.	...	...	...	Park Road
CORDEN, WILLIAM	...	...	...	High Street, Dartford
COWLES, Miss	...	...	...	Flora Villa
CRADOCK, R. W.	...	...	...	Myrtle Villa

* Where no locality is inserted read Belvedere.

CRAWFORD, BARTHOLOMEW	...	3, Gloucester Villas
DALDY, F. R., B.A.	...	Aldine House
DALDY, H.	...	Aldine House
DAWKINS, Mrs.	...	Bexley Road
EDWARDS, G. M.	...	Erith Road
EGERTON, WILLIAM, Junr.	...	Erith
EGERTON, Mrs.	...	Erith
EGERTON, WALTER...	...	Bridgewater House
ELLIOT, JOHN, M.R.C.S.	...	The Firs
ELLIOT, Mrs.	...	The Firs
ELTON, O.	...	Picardy Road
ELTON, Mrs.	...	Picardy Road
EMMS, T. L....	...	Picardy Hill
FAVARGER, H.	...	Yewhurst
GIBSON, S. W.	...	Belvedere Hotel
GOODMAN, A. W.	...	Heath House
GOODMAN, C. H.	...	Kearsbrook Lodge
GOODMAN, Miss N.	...	Heath House
GREENWAY, A. S., M.D.	...	Heath Villa
GREENWAY, Miss	...	Heath Villa
GREIG, H. A.	...	The Eaves
GREIG, Mrs.	...	The Eaves
GREIG, H. F.	...	The Eaves
GREIG, Miss	...	The Eaves
GREY, M.	...	Abbey Wood
GREY, R.	...	Abbey Wood
GREY, Miss	...	Abbey Wood
GRIGG, Mrs.	...	Thanet Cottage
HAINES, T. J.	...	Albert Road
HARDY, Rev. T. W., M.A.	...	15, Erith Road
HARDY, T. de L.	...	15, Erith Road
HARDY, H. J.	...	15, Erith Road
HARDY, Miss	...	15, Erith Road
HARDY, Miss LILIAN	...	15, Erith Road
HARDY, Miss LUCY	...	15, Erith Road
HARRIS, J.	...	Howrah Villa
HEATHER, THOMAS	...	Little Heath House, Old Charlton
HEATON, C. W., F.C.S.	...	Albert Road
HENWOOD, W. B.	...	2, Picardy Hill
HICKIE, R. C.	...	Abbey Wood
HONEY, F. H.	...	West Heath House
HOOKE, A.	...	Court Lodge
HOUGHTON, F. E.	...	Crossness
HOUGHTON, F. G.	...	Crossness
HULETT, D.	...	Holly Hill
KNOBLAUCH, L.	...	Park Road
LETCHER, M. J.	...	Ripley Lodge
LIGHTBODY, R.	...	The Grange
LYSTER, G. K.	...	Gisburne House
MARKBY, A. P.	...	Woolwich Road
MARSHALL, WILLIAM	...	1, Rutland Gate
MARSHALL, E.	...	1, Rutland Gate
MAY, E. A.	...	Gladeswood Road
MILLS, Sir C. H., Bart., M.P.	...	The Wilderness, Sevenoaks
MOENS, A. F.	...	Holm Hurst
MONKHOUSE, C.	...	Erith Road

MORICE BEAUMONT, LL.B.	...	Treflys, Erith
PALMER, Mrs.	...	Tower House
PARISH, FREDERICK	...	Erith
PINNOCK, Miss	...	Heathfield House
PINNOCK, Miss A. C.	...	Heathfield House
PLAYER, C.	...	Picardy Hill
PURVIS, Rev. T. A.	...	Essenden Road
RIND, MALCOLM, Col.	...	Westheath, Abbey Wood
ROBINSON, W. O.	...	2, Rutland Gate
SANDERSON, W.	...	Fern Bank
SANDERSON, Mrs.	...	Fern Bank
SCRASE, Miss	...	15, Queen's Road, Erith
SEAGER, F. W.	...	Bexley Road
SHARP, Mrs.	...	6, Erith Road
SHIRREFF, ALEXANDER	...	West Heath
SINGER, Capt., R.N.	...	Westgate House
SMITH, H. W.	...	Bedwell Road
SMITH, SETH	...	West Heath
SMITH, Mrs. SETH	...	West Heath
SPURRELL, Dr.	...	Picardy Road
SPURRELL, F. C. J.	...	Picardy Road
STARLING, J. H., F.C.S.	...	The Avenue, Erith
STICKLAND, J.	...	Estate Office
STRICKLAND, R. A.	...	Hastings Villa, Erith
STRICKLAND, H. A.	...	Hastings Villa, Erith
STRICKLAND, Miss	...	Hastings Villa, Erith
SURMON, H. J.	...	Park Road
TAYLOR, JAMES	...	Albert Road
THOMAS, W. H.	...	Ormonde House
THOMAS, W. H. Junr.	...	Ormonde House
THOMAS, Miss	...	Ormonde House
THOMAS, Miss J.	...	Ormonde House
THOMAS, W.	...	Picardy Hill
THORPE, Miss	...	2, Gloucester Road
UTERMARCK, Miss	...	15, Erith Road
WALTERS, JAMES	...	Belvedere
WILLCOCKS, G.	...	23, Rood Lane, E.C.
WILLIAMS, Miss	...	3, Gladeswood Road
WISE, E.C.	...	Park Road



THE [illegible] [illegible]

THE [illegible] [illegible]

THE [illegible] [illegible]

[illegible text block]

[illegible text block]

[illegible text block]

[illegible text block]

[illegible text block]

[illegible text block]

[illegible text block]

[illegible text block]



